

WHAT IS CLAIMED IS:

1. A handheld night vision device for viewing a subject in low light conditions, wherein the subject is not viewed through an image intensifier tube, and wherein a reduced portion of a user's face proximate an eye is illuminated, the night vision device comprising:
 - a housing having optics to collect light into the housing;
 - an eyepiece;
 - an imager positioned to be illuminated by the light, the imager configured to generate an electrical signal representative of an intensity enhanced image of the light;
 - a digital display attached to the housing, the digital display configured to display the intensity enhanced image, wherein the digital display is viewable through the eyepiece.
2. The night vision device of Claim 1, wherein the digital display is disposed within the housing.
3. The night vision device of Claim 2, wherein the eyepiece further comprises a flexible eye cup pliable to encompass an eye of a user so as to substantially preclude illumination of a face of the user.
4. The night vision device of Claim 1, wherein the digital display comprises a liquid crystal display (LCD).
5. The night vision device of Claim 1, further comprising a light source.
6. The night vision device of Claim 5, wherein the light source comprises an infrared light source.
7. The night vision device of Claim 6, wherein the light source comprises an array of infrared light emitting diodes.
8. The night vision device of Claim 5, further comprising a user controller configured to adjust the intensity of the light source.

9. The night vision device of Claim 1, further comprising an interchangeable filter disposed between the digital display and the eyepiece.

10. The night vision device of Claim 9, wherein the interchangeable filter is configured to reduce night blindness.

11. The night vision device of Claim 9, wherein the interchangeable filter is configured to enhance the contrast of the digital display.

12. The night vision device of Claim 9, wherein the interchangeable filter is configured to reduce the amount of light projected through the eyepiece.

13. The night vision device of Claim 1, wherein the brightness of the digital display is adjustable.

14. A method for providing night vision to a user, the method comprising:
receiving image data through first optics into a housing;
digitally enhancing the image data to create enhanced image data adjusted for low light conditions;
electronically displaying an image corresponding to the enhanced image data on a screen disposed within the housing; and
providing a view of the screen through second optics attached to the housing.

15. The method of Claim 14, further comprising emitting light so as to illuminate an object to be observed.

16. The method of Claim 15, further comprising emitting infrared light.

17. The method of Claim 16, further comprising selectively adjusting the intensity of the infrared light.

18. The method of Claim 14, further comprising selectively adjusting the gain of the screen.

19. The method of Claim 14, further comprising selectively filtering the view of the screen through the second optics.

20. The method of Claim 19, wherein the selective filtering is based on preserving unaided visual acuity.

21. The method of Claim 19, where the selective filtering is based on enhancing visual quality.

22. The method of Claim 14, further comprising providing an electronic signal corresponding to the enhanced image data to an external device.

23. The method of Claim 14, further comprising remotely displaying the image.

24. The method of claim 14, wherein receiving the image through the first optics comprises:

collecting light through an objective lens; and

focusing the light onto an optical sensor.

25. An apparatus for viewing subjects in reduced light, the apparatus comprising:
an enclosure;

a sensing means attached directly to the enclosure for receiving light and for generating a signal proportional to an intensity enhanced image of the light;

a means for receiving the signal and for displaying the intensity enhanced image within the enclosure; and

a means for viewing the intensity enhanced image within the enclosure.

26. The apparatus of Claim 25, wherein the sensing means is disposed within the enclosure.

27. The apparatus of Claim 25, a means for filtering the intensity enhanced image.
28. The apparatus of Claim 25, further comprising a means for emitting light substantially imperceptible to unaided humans, wherein the emitted light is detectable by the sensing means.
29. The apparatus of Claim 25, further comprising a means for focusing the light onto the sensing means.
30. The apparatus of Claim 25, further comprising a means for formatting the signal for display.
31. A night vision scope comprising:
a lens assembly configured to collect light;
a sensor configured to amplify the light; and
an internal video display module configured to display a video signal corresponding to an image of the amplified light.
32. The night vision scope of Claim 31, wherein the sensor is monochromatic.
33. The night vision scope of Claim 31, wherein the sensor is selected from the group comprising a charge coupled device (CCD) and a complementary metal oxide silicon (CMOS) device.
34. The night vision scope of Claim 31, wherein the sensor is a digital video camera.
35. The night vision scope of Claim 31, further comprising an infrared light source.
36. The night vision scope of Claim 31, wherein the internal video display module is a liquid crystal display.

37. The night vision scope of Claim 31, wherein the internal video display module is monochromatic.

38. The night vision scope of Claim 32, further comprising a filter configured to change the color of the internal video display module.